

Deep Water Horizon Oil Spill

Incident Action Plan (IAP) #5

(Field Version)



Operational Period: 05/24/2010 through 05/28/2010


Starting: 0600 2010/05/24

Ending: 0600 2010/05/28



"Chalmations"

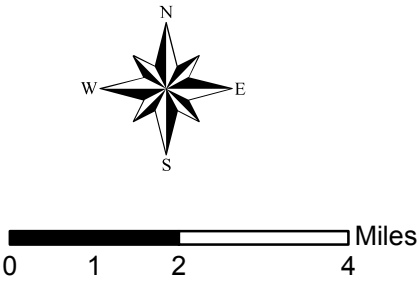
"Plaquemine Reds"

INCIDENT BRIEFING	Incident Name Deepwater Horizon Oil Spill	Date 05/20/2010	Time 0700
 See Attached Map			
Page 1 of 8	Prepared by (Name and Position) Ruhl/Bordelon/Staudt		



Sampling Locations

 Air Monitoring Locations




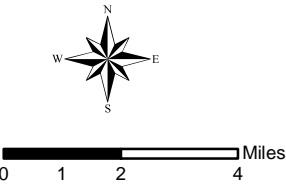
US EPA REGION 6
Air Monitoring Locations
Venice Division
05/23/2010
Deep Water Horizon Oil Spill





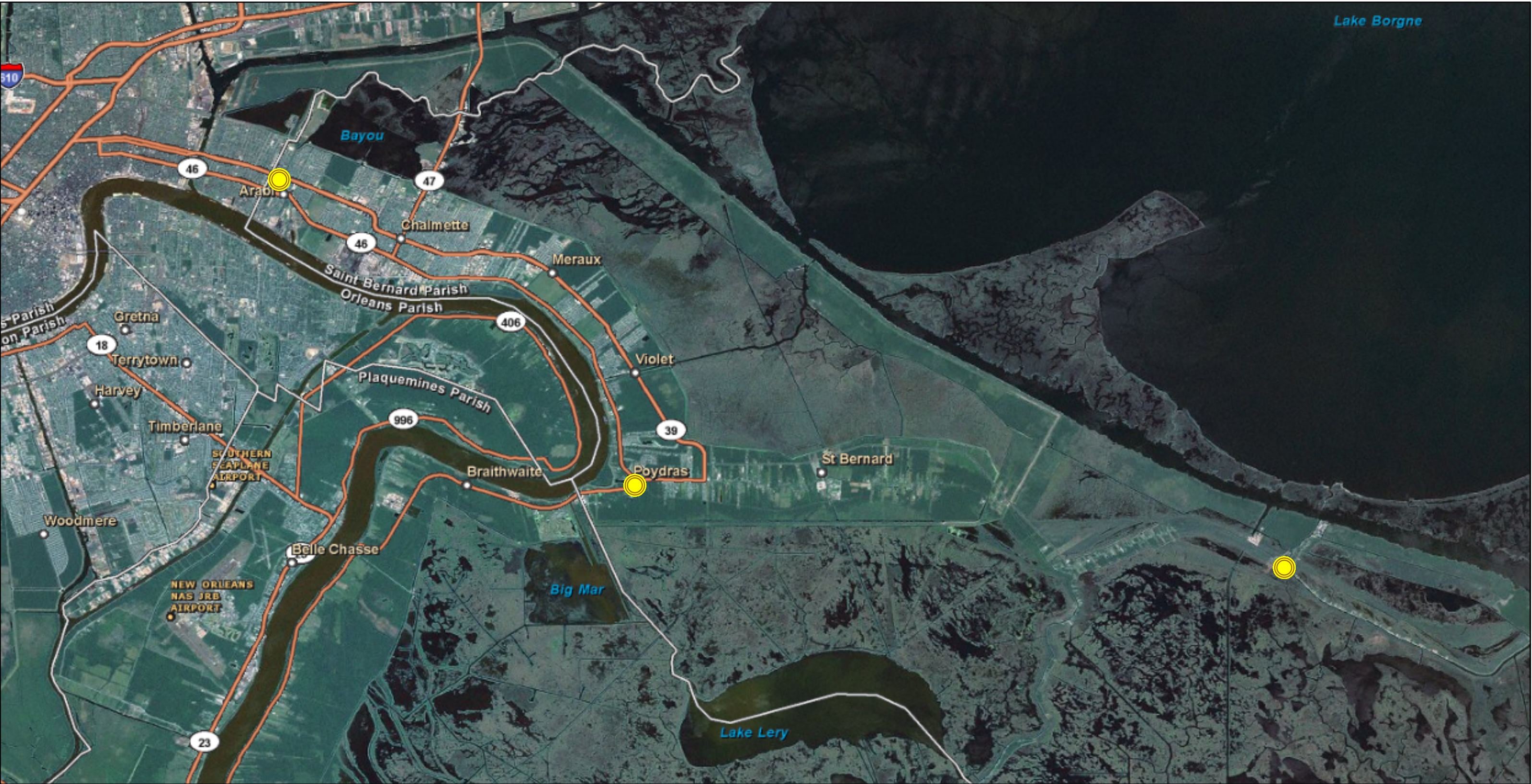
Legend

 Early Detection/Near Shore Sample Locations



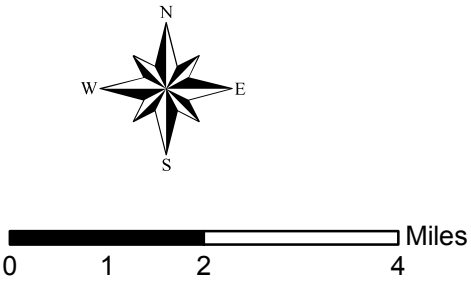
US EPA REGION 6
Early Detection/Near Shore
Target Sample Locations
Chalmette Division
05/23/2010
Deep Water Horizon Oil Spill





Sampling Locations

 Air Monitoring Locations




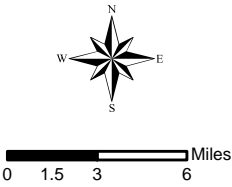
US EPA REGION 6
Air Monitoring Locations
Chalmette Division
05/23/2010
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Legend

 Early Detection/Near Shore Sample Locations

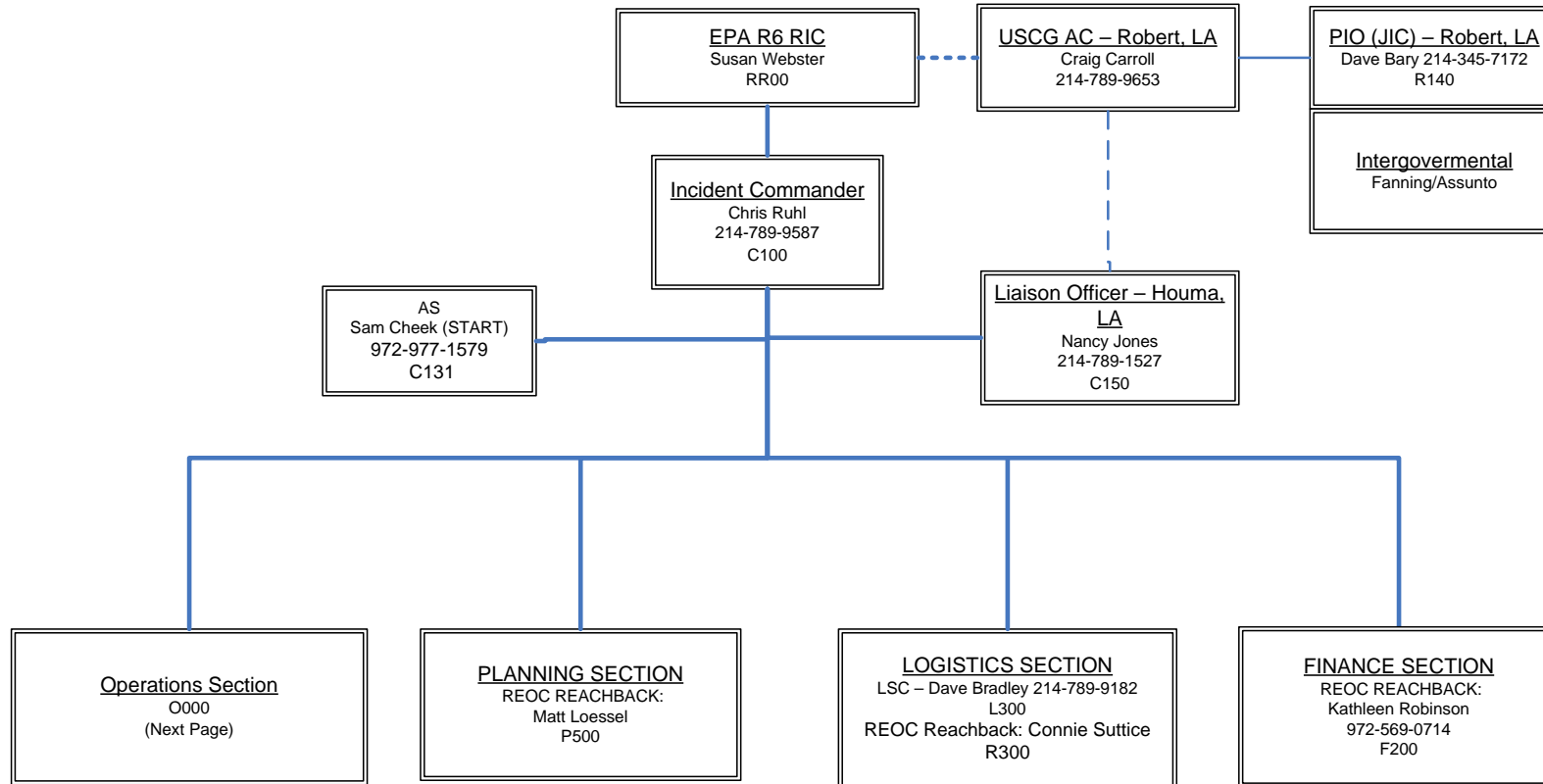


US EPA REGION 6
Early Detection/Near Shore
Target Sample Locations
Venice Division
05/23/2010
Deep Water Horizon Oil Spill



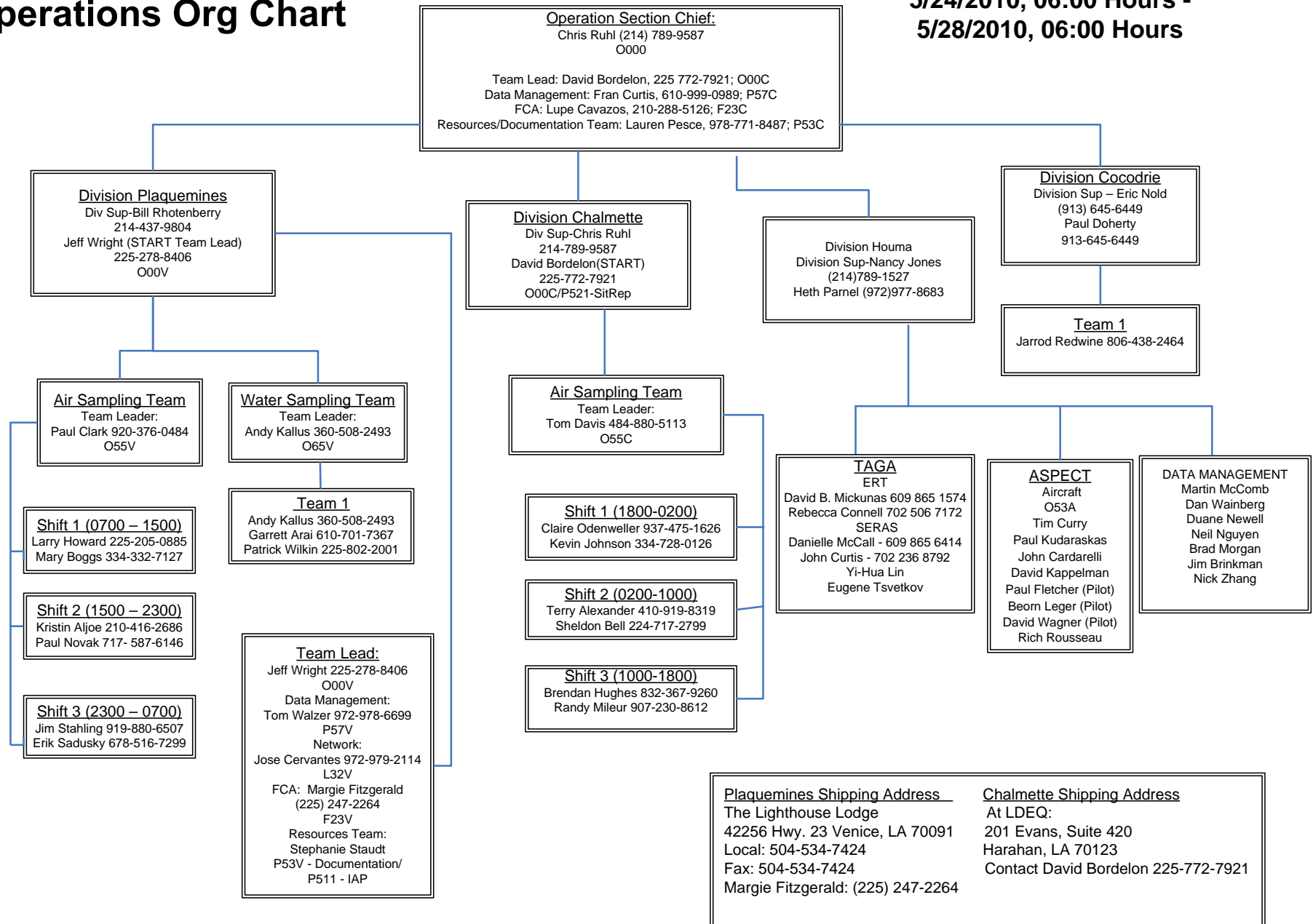
Current Organization	
<p>Ruhl/Bordelon/Staudt</p> <p>See Attached</p>	
Page 2 of 8	<p>Prepared by (Name and Position)</p> <p>Chris Ruhl</p>

Deep Water Horizon Oil Spill Command Org Chart



Deep Water Horizon Oil Spill Operations Org Chart

Date: 5/24/2010
Operational Period:
5/24/2010, 06:00 Hours -
5/28/2010, 06:00 Hours



[illegible]

Summary of Current Actions	
1. Review and update the project charter to reflect the current status and objectives.	2. Conduct a stakeholder analysis to identify key stakeholders and their interests.
3. Develop a detailed project plan, including a timeline and resource allocation.	4. Implement the project plan and monitor progress against the schedule.
5. Regular communication and reporting to stakeholders to ensure transparency.	6. Address any risks or issues that arise during the project execution.
7. Conduct a final review and evaluation of the project outcomes.	8. Document lessons learned for future projects.

Overall Incident Objectives

- | | |
|--|--|
| <input checked="" type="checkbox"/> Ensure the Safety of Citizens and Responders Personnel | <input type="checkbox"/> Control the Source of the Spill |
| <input checked="" type="checkbox"/> Manage a Coordinated Response Effort | <input checked="" type="checkbox"/> Maximize Protection of Environmentally-Sensitive Areas |

- ☐ Contain and Recover Spilled Material ☐ Recover and Rehabilitate Injured

Wildlife

- ☐ Remove Oil from Impacted Areas ☐ Minimize Economic Impacts
- ☐ Keep Stakeholders and Public Informed of Response Activities

Additional incident Objectives:



Tactical Objectives for Operational Period

[illegible]

DeepWater Horizon Oil Spill
Personnel Resource List

Last_Name	First_Name	Phone Number	Mob Date	Projected_Demob_Date	Assignment
Bordelon	David	225-772-7921	4/28/2010	6/2/2010	Mobil CP Task Force-Team Lead
Curtis	Fran	610-999-0989	5/18/2010	6/02/2010	GIS Data Team Lead/ Chamette Data
Fitzgerald	Margie	225-247-2264	4/29/2010	NA	Plaquemines Finance
Howard	Larry	225-205-0885	5/18/2010	6/02/2010	Plaquemines Air Sampler
Boggs	Mary	401-301-3278	5/21/2010	6/08/2010	Plaquemines Air Sampler
Wilkin	Patrick	225-802-2001	4/30/2010	5/25/2010	Plaquemines Water Sampling
Quick	Tyshaun	225-200-4720	4/30/2010	NA	Plaqu/Chalm Environmental Unit Courier
Wright	Jeff	225-278-8406	5/19/2010	6/3/2010	Plaquemines Field Team Lead
Novak	Paul	717-587-6146	5/20/2010	6/04/2010	Plaquemines Air Sampling
Odenweller	Claire	937-475-1626	5/2/2010	5/27/2010	Chalmette Air Sampling
Redwine	Jarrod	806-438-2464	5/2/2010	5/27/2010	Chalmette Water/Sed Sampling
Sena	David	574-261-5413	5/25/2010	6/10/2010	Chalmette Air Team
Smith	Tim	937-367-7475	5/25/2010	6/10/2010	Cocodrie Water Sampling
Alexander	Terry	410-919-8319	5/5/2010	5/27/2010	Chalmette Air Sampling
Clarke	Paul	920-378-0484	5/9/2010	5/27/2010	Plaquemines Air Boss
Pelc	Dayna	484-947-9670	5/26/2010	6/03/2010	Plaquemines Air Boss
Aljoe	Kristin	210-416-2686	5/10/2010	5/26/2010	Plaquemines Air Sampling
Cheek	Sam	972-977-1579	5/12/2010	5/26/2010	Health and Safety
Hughes	Brendan	832-367-9260	5/12/2010	5/28/2010	Chalmette Air Team
Cavazos	Lupe	210-288-5126	5/13/2010	5/28/2010	Chalmette Field Cost Accountant

Cervantes	Jose	972-979-2114	5/13/2010	5/28/2010	Plaquemines Logistics/Coms
Johnson	Kevin	334-728-0126	5/13/2010	5/28/2010	Chalmette Air Team
Stahling	Jim	919-880-6507	5/15/2010	5/29/2010	Plaquemines Air Sampling
Morgan	Brad	972-977-7422	5/18/2010	5/26/2010	REOC; In Houma Unified ICP 5/18-5/26
Pesce	Lauren	978-771-8487	5/18/2010	6/2/2010	Chalmette Doc Unit / Assist. FTL
Davis	Tom	484-880-5113	5/19/2010	6/3/2010	Chalmette Air Boss
Ford	Greg	919-358-9980	5/26/2010	6/10/2010	Chalmette Air Team
Sandusky	Erik	678-516-7299	5/19/2010	6/4/2010	Plaquemines Air Team
Staudt	Stephanie	713-819-5702	5/19/2010	6/5/2010	Plaquemines Doc Unit / Assist. FTL
Mileur	Randy	907-230-8612	5/19/2010	6/6/2010	Chalmette Air Team
Arai	Garrett	225-802-2001	5/21/2010	6/07/2010	Plaquemines Water Sampling
Kallus	Andrew	225-802-2001	5/19/2010	6/06/2010	Plaquemines Water Sampling Team Lead
Walzer	Tom	225-802-2001	5/18/2010	6/02/2010	Plaquemines Data Manager
Wood	Jeremy	334-663-3886	5/26/2010	6/14/2010	Chalmette Air Team
Kiel	Andy	216-409-0821	5/25/2010	6/10/2010	Chalmette Air Team
Cooper	Tray	210-296-7403	5/24/2010	6/09/2010	Plaquemines Air Team
Bryniarski	Jeff	708-284-2490	5/27/2010	6/11/2010	Plaquemines Air Team

DeepWater Horizon Oil Spill
Equipment Resource List

Equipment	Serial Number	Checked Out To	Assignment
SKC CHARGER	RFW23488	D. Bordelon	Chalmette
SKC PUMP	RFW20308	D. Bordelon	Chalmette
SKC PUMP	RFW23468	D. Bordelon	Chalmette
SKC PUMP	RFW23470	D. Bordelon	Chalmette
SKC PUMP	RFW23480	D. Bordelon	Chalmette
SKC PUMP	RFW23482	D. Bordelon	Chalmette
Hanna 1	RFW23664	D. Bordelon	Chalmette
Hanna 1	RFW23663	D. Bordelon	Chalmette
Hanna 1	RFW23662	D. Bordelon	Chalmette
Drager Pump	RFW10601		Chalmette
Drager Pump	RFW10600		Chalmette
Printer	WSH00257		Chalmette
Printer	WSH00258		Chalmette
Camera	WSH00155		Chalmette
Camera	WSH00188		Chalmette
Garmin 60csx	WSH00242		Chalmette
Garmin 60csx	WSH00185		Chalmette
Ponar sampler	RFW24889		Chalmette
Ponar sampler	RFW24898		Chalmette
Water sampler	RFW20423		Chalmette
Pdr	RFW21959		Chalmette
Pdr	RFW21958		Chalmette
Pdr	RFW21983		Chalmette
Pdr	RFW21985		Chalmette
Dataram	4368		Chalmette
Turbidity Meter	9967		Chalmette
Turbidity Meter	13905		Chalmette
Area RAE	9376		Chalmette
Area RAE	7544		Chalmette
Area RAE	7545		Chalmette
Camera	WSH00198		Chalmette
Camera	WSH00082		Chalmette
Data/Ram	RFW21866	B. Latham	Venice
DataRam 7	07243	B. Latham	Venice
Multi-Rae	RFW23713	B. Latham	Venice
Multi-Rae	RFW23673	B. Latham	Venice
Multi-Rae	RFW21154	B. Latham	Venice
Multi-Rae	RFW23115	B. Latham	Venice
Multi-Rae	RFW23676	B. Latham	Venice
NIKON COPIX	WSH00190	B. Latham	Venice
NIKON COPIX	WSH00067	B. Latham	Venice
Rental Vehicle 1		B. Latham	Venice
Rental Vehicle 2		B. Latham	Venice
Rental Vehicle 3		B. Latham	Venice
Rental Vehicle 4		B. Latham	Venice
Rental Vehicle 5		B. Latham	Venice
Rental Vehicle 6		B. Latham	Venice
Satellite	RFW23619	B. Latham	Venice
Satellite	RFW23620	B. Latham	Venice
Satellite	RFW23622	B. Latham	Venice
SKC PUMP	RFW23476	B. Latham	Venice

DeepWater Horizon Oil Spill
Equipment Resource List

SKC PUMP	RFW23472	B. Latham	Venice
SKC PUMP	RFW20310	B. Latham	Venice
SKC PUMP	RFW23474	B. Latham	Venice
SKC PUMP	RFW20328	B. Latham	Venice
TVA#2	EPA724516	B. Latham	Venice
Waders		B. Latham	Venice
YSI 600XL	RFW21199	B. Latham	Venice
YSI 600XL	RFW24849	B. Latham	Venice
Satellite Phone	RFW23623		Venice
SKC Charger	RFW23489	B. Latham	Venice
Fuji Camera	RFW23259	B. Latham	Venice
Garmin 60csx	WSH00244	B. Latham	Venice
SKC Pump	RFW23486	B. Latham	Venice
Drager Pump	RFW20422	B. Latham	Venice
Garmin 60csx	WSH00213	B. Latham	Venice
Ponar sampler	RFW10493	B. Latham	Venice
100' YSI cable	RFW23102	B. Latham	Venice
100' YSI cable	RFW23104	B. Latham	Venice
Dataram	6243	B. Latham	Venice
Dataram	4672	B. Latham	Venice
Dataram	8560	B. Latham	Venice
Dataram	4512		VENICE
Turbidity Meter	7476		Venice
Turbidity Meter	8659		Venice
Battery Charger	RFW21044		Venice
Battery Charger	RFW21047		Venice
Battery Charger	RFW21045		Venice
Dataram	6306		Venice
Multi-Rae	21153		Venice
Multi-Rae	23674		Venice
Multi-Rae	5876		Venice
Multi-Rae	7201		Venice
Multi-Rae	5755		Venice

1. Incident Name	2. Operational Period	ICS 202-EPA INCIDENT OBJECTIVES
Deep Water Horizon Oil Spill	Operation period 05/24/2010 through 05/28/2010	
3. Incident Objectives: <ol style="list-style-type: none"> 1. Conduct operations in a safe manner 2. Coordinate activities with Federal, State, and locals 3. Conduct monitoring and sampling of water and air to determine impacts of oil discharged and dispersant used 4. Provide USCG data management support 		
4. Operational Period Command Emphasis: <p>Air & Water sampling operations</p>		
5. Prepared by: (START)		Date / Time
Stephanie Staudt (START)		5/23/2010
6. Approved by: (Incident Commander)		Date / Time
Chris Ruhl(EPA)		05/23/2010
INCIDENT OBJECTIVES		ICS 202-EPA

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division Plaquemines			
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Bill Rhotenberry	U.S. EPA	214-437-9804	
Division Lead START:		Jeff Wright	START	225-278-8406	
Air Sampling Lead START:		Paul Clarke	START	920-378-0484	
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Air Sampling Team 1	Paul Clarke	920-378-0484	8	Contact Div Supervisor /Division Lead (START)	
START Team Members (6):	Mary Boggs	401-301-3278			
Shift 1 (0600-1400)	Larry Howard	225-205-0885			
	Paul Novak	717-587-6146			
Shift 2 (1400-2200)	Kristen Aljoe (DeMob 5/26)	210-416-2686			
	Tray Cooper (Mob 5/24)	210-296-7403			
	Erik Sadusky	678-516-7299			
Shift 3 (2200-0600)	Jim Stahling	919-880-6507			
	Jeff Bryniarski (Mob 5/27)	708-284-2490			
7. Work Assignments					
1. Conduct air sampling at the following locations: V02(29.25274 N, 89.35750 W) US COAST GUARD STATION, Venice, LA V03(29.31449 N, 89.38433 W) Welding Supply Company, Boothville, LA V05(29.35699 N, 89.45487 W) Fort Jackson, LA Sample for VOCs and PM2.5, Monitor for VOC, H2S, CO Monitor for VOCs using colorimetric tubes if VOC action level (10 ppm) is exceeded					
8. Special Instructions					
1. Team Supervisors give comms/status reports to START Div Ld at 0900 and 1200. 2. Notify Div Sup if any health and safety issues occur. 3. Shift 1 to check in no later than 1500 at Division Plaquemines Command Post for debrief. Shift 2 to check in no later than 2300 at Division Plaquemines Command Post for debrief. Shift 3 to check in no later than 0700 at Division Plaquemines Command Post for debrief. 4. All media interest should be directed to Division Supervisor. 5. Complete 214B at end of shift and submit to START team lead.					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief		214-789-9587			
Bill Rhotenberry (EPA), Div Supv		214-437-9804			
Jeff Wright, START Div Ld		225-278-8406			
Paul Clarke, START Air Ld/ AST Shift 1 Lead		920-378-0484			
Kristin Aljoe, START Air Sampling Shift 2 Lead		210-416-2688			
Jim Stahling, START Air Sampling Shift 3 Lead		919-880-6507			
Jose Cervantes, START MCP/Network Team		972-979-2114			
Tom Walzer, START Data Management Team Ld		972-978-6699			
Margie Fitzgerald, START Field Cost Accountant		225-247-2264			
Stephanie Staudt, START Resources Team		713-819-5702			
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by Date/Time Stephanie Staudt 23-May-10 / 16:32 (START)		11. Reviewed by (OSC) Chris Ruhl, OSC		12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division: Plaquemines			
5. Operations Personnel					
	Name	Affiliation	Contact # (s)		
Operations Chief:	Chris Ruhl	U.S. EPA	214-789-9587		
Division Supervisor:	Bill Rhotenberry	U.S. EPA	214-437-9804		
Division Lead START:	Jeff Wright	START	225-278-8406		
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Mobil CP Task Force	Jeff Wright	225-278-8406	5	Contact Div Supervisor /Division Lead (START)	
MCP/Network Team START (1)	Jose Cervantes	972-979-2114			
Data Management Team START (1)	Tom Walzer	713-705-1467			
Field Cost Accountant START (1)	Margie Fitzgerald	225-247-2264			
Resources Team (START (1)	Stephanie Staudt	713-819-5702			
7. Work Assignments					
<ol style="list-style-type: none"> 1. Conduct support operations to Division Command Staff and all field teams. 2. Conduct logistics support to MCP and all field operations. 3. Provide field accounting support for cost documentation. 					
8. Special Instructions					
<ol style="list-style-type: none"> 1. Team Supervisors give comms/status reports to START Div Ld at 1000 and 1500. 2. Notify Div Sup if any health and safety issues occur. 3. All teams check in no later than 2000 at Division Plaquemines Command Post for debrief. 4. All media interest should be directed to Division Supervisor. 					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief		214-789-9587			
Bill Rhotenberry (EPA), Div Supv		214-437-9804			
Jeff Wright, START Div Ld		225-278-8406			
Paul Clarke, START Air Sampling Team Ld		334-332-7127			
See communications list for additional contact numbers					
Emergency Communications					
Medical <u>911</u>		Evacuation _____		Other <u>Safety Officer</u>	
10. Prepared by Date/Time Stephanie Staudt 23-May-10 / 14:62 (START)		11. Reviewed by (OSC) Chris Ruhl, OSC		12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division Plaquemines			
5. Operations Personnel					
		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Bill Rhotenberry	U.S. EPA	214-437-9804	
Division Lead START:		Jeff Wright	START	225-278-8406	
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Water Sampling Team START	Andy Kallus (Task 1)	360-508-2493	1	Contact Div Supervisor /Division Lead (START)	
Team Members: START (2)	Garrett Arai (Task 1) Patrick Wilkin (Task 2 - Demob 5/24)	610-209-2062 225-802-2001	2		
Boat Captain (Task 1 & 2) Boat Captain * Boat Captain *	Cpt. Allen Moreau Cpt. Troy Wetzels Cpt. Billy Wells	504-382-0794 504-701-3474 504-329-7451	3	Charter Boat Captain Charter Boat Captain Charter Boat Captain	
7. Work Assignments					
<ol style="list-style-type: none"> Conduct water sampling at previous sampling locations as requested by Environmental Unit and directed by the Division Sup. Collect oil/dispersant samples as directed by the Division Sup. Conduct oil spill reconnaissance activities in oil areas. <p>*As necessary</p>					
8. Special Instructions					
<ol style="list-style-type: none"> Team Supervisors give comms/status reports to START Div Ld at 0600. Notify Div Sup if any health and safety issues occur. Task Forces to be off the water by 1630 Water sampling team to check in no later than 2000 at Division: Plaquemines Command Post for debrief. All media interest should be directed to Division Supervisor. Use satellite phone 881641476533 as needed: (While using phone, dial 001 then phone number you are trying to reach) 					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone	Satellite Phone		
Chris Ruhl, Ops Chief		214-789-9587			
Bill Rhotenberry (EPA), Div Supv		214-437-9804	881641476533		
Jeff Wright, START Div Ld		225-278-8406			
Tom Walzer, START Data Management Team Ld		972-978-6699			
Jose Cervantes, START MCP/Network Team		972-979-2114			
Margie Fitzgerald, START Field Cost Accountant		225-247-2264			
Stephanie Staudt, START Resources Team		713-819-5702			
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by Date/Time Stephanie Staudt 23-May-10 / 16:32 (START)		11. Reviewed by (OSC) Chris Ruhl, OSC		12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division Chalmette			
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Lead START:		David Bordelon	START	972-213-6618	
Air Sampling Lead START:		Tom Davis	START	484-880-5113	
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Air Sampling Team	Tom Davis	484-880-5113	7	Contact Div Supervisor /Division Lead (START)	
START Team Members (6): Shift 1 (1800-0200) Mobilizing Mobilizing Shift 2 (0200-1000) Mobilizing Shift 3 (1000-1800) Mobilizing	Kevin Johnson Claire Odenweller Andy Kiel Greg Ford Terry Alexander Sheldon Bell David Sena Brendan Hughes Randy Mileur Jeremy Wood	334-728-0126 937-475-1626 216-409-0821 919-358-9980 410-919-8319 224-717-4698 574-261-5413 832-367-9260 907-230-8612 334-663-3886		Air Sampling Lead (START)	
7. Work Assignments					
1. Conduct air sampling at the following locations: C02 - located at Fire Station number 8, Poydras LA 29.86609 -89.89108 C04 - located at Fire Station on Aycock St in Chalmette, LA 29.96082, -90.00132 C05 - located at Fire Station number 11, Hopedale, LA, 29.84049, -89.68980 Sample for VOCs and PM2.5, Monitor for VOC and PM10 Monitor for VOCs using colorimetric tubes if VOC action level (10 ppm) is exceeded					
8. Special Instructions					
1. Team Supervisors give comms/status reports to START Div Ld at 1300 & 1700 for Shift 1, 2000 for Shift 2 and 1000 for Shift 3. 2. Notify Div Sup if any health and safety issues occur. 3. Shift 1 to check in at 1000 and 1800 at Chalmette LRV Command Post for debrief. Shift 2 to check in at 1800 and 0200 at Chalmette LRV Command Post for debrief. Shift 3 to check in at 0200 and 1000 at Chalmette LRV Command Post for debrief. 4. All media interest should be directed to Division Supervisor.					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief/Div Supv		214-789-9587			
David Bordelon, START Div Ld		225-772-7921			
Tom Davis, START		484-880-5113			
Fran Curtis, START IT Team Ld		610-999-0989			
Lupe Cavazos, START Field Cost Accountant		210-288-5126			
Lauren Pesce, START Resources Team		978-771-8487			
See communications list for additional contact numbers					
Emergency Communications					
Medical _911		Evacuation		Other Safety Officer	
10. Prepared by Date/Time David Bordelon 10 / 13:20		11. Reviewed by (PSC) Chris Ruhl, OSC		12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division Cocodrie			
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Eric Nold	U.S. EPA	816-718-4274	
Water Sampling Team Lead EPA		Paul Doherty	U.S. EPA	913-645-6449	
Division Lead START		David Bordelon	START	225-772-7921	
Water Sampling Team Lead START		Jarrold Redwine	START	806-438-2464	
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Water Sampling Team 1	Eric Nold	816-718-4274		Contact Div Supervisor /Division Lead (EPA)	
Team Members: EPA	Paul Doherty Eric Nold	913-645-6449 816-718-4274	2	Water Sampling Group Lead (EPA)	
Team Members: START (1)	Jarrold Redwine	806-438-2464		Water Sampling Group Lead (START)	
Mobilizing Boat Captain	Tim Smith Cpt. Eugene Foret	937-367-7475 985-594-6626	2	Strike Team Leader	
7. Work Assignments					
1. Conduct water sampling at 3-5 locations in the Timbalier, Terrebonne and Barataria Bay systems in the Gulf of Mexico and coastal marshes in Terrebonne, Lafourche, and Jefferson Parishes. Water sampling locations include Early Detection sampling points 0009, and NCA10 points 1336, and 1332 as well targets of opportunity provided by the Environmental Unit. 2. Collect oil samples as directed by the Division Sup. 3. Complete 214b.					
8. Special Instructions					
1. Team Supervisors give comms/status reports to START Div Ld at 0800. 2. Notify Div Sup if any health and safety issues occur. 3. All Teams off the water by 1630. 4. All media interest should be directed to Division Supervisor.					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief/Div Supv		214-789-9587			
Eric Nold, Division Supervisor		816-718-4274			
Paul Doherty, Water Sampling Team Lead		913-645-6449			
David Bordelon, START Div Ld		225-772-7921			
Jarrod Redwine, START Water Sampling Team 1		248-939-7824			
Fran Curtis, START IT Team Ld		610-999-0989			
Lupe Cavazos, START Field Cost Accountant		210-288-5126			
Lauren Pesce, START Resources Team		978-771-8487			
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by Date/Time David Bordelon 23-May-10 / 13:20		11. Reviewed by (PSC) Chris Ruhl, OSC		12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch			4. Division/Group/Staging Division Houma		
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Nancy Jones	U.S. EPA	214-789-1527	
Division Lead START:		Brad Morgan	START	972-977-7422	
6. Resources Assigned		"X" indicates 204a attachment with additional instructions			
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Houma Incident Command Task Force	Nancy Jones	214-789-1527	8	Contact Div Supervisor /Division Lead	<input type="checkbox"/>
Data Management (EPA)	Marty McComb Dan Wainberg				
Data Management (START)	Brad Morgan Jim Brinkman Nick Zhang	972-977-7422 505-550-5024 512.517.0538			
Technical Specialist (EPA)	Duane Newell Neil Nguyen	832-860-2956			
Technical Specialist (START)	Heth Parnel (5/26/10)	972-977-8683			
7. Work Assignments					
<ol style="list-style-type: none"> Conduct support operations to Division Command Staff. Assist with data management as directed. Conduct air sampling aboard USCG vessels as needed. Provide Vietnamese translation as needed. 					
8. Special Instructions					
<ol style="list-style-type: none"> Team Supervisors give status reports to Division Supervisor. Notify Div Sup if any health and safety issues occur. All teams check in no later than 0800 at the Houma Incident Command Post. All media interest should be directed to Division Supervisor. 					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief/Div Sup		214-789-9587			
Nancy Jones, Div Sup		214-789-1527			
Martin McComb					
Dan Wainberg					
Duane Newell					
Neil Nguyen					
Brad Morgan, START Div Ld		972-977-7422			
Jim Brinkman					
Ma Long					
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by David Bordelon		Date/Time 23-May-10 / 22:31		11. Reviewed by (OSC) Chris Ruhl, OSC	
				Date/Time	
				12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 2010 To: 0600, 28 May 2010		Assignment List ICS 204-EPA	
3. Branch Environmental Branch			4. Division/Group/Staging Division TAGA		
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Nancy Jones	U.S. EPA	214-789-1527	
Division Lead :		Dave Mickunas	U.S. EPA	609-865-1574	
6. Resources Assigned			"X" indicates 204a attachment with additional instructions		
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
TAGA Task Force	Dave Mickunas	609-865-1574	6	Contact Div Supervisor /Division Lead	<input type="checkbox"/>
ERT	Rebecca Connell -	702 506 7172			
SERAS	Danielle McCall John Curtis Yi-Hua Lin Eugene Tsvetkov	609 865 6414 702 236 8792			
7. Work Assignments					
1. Conduct support operations to Division Command Staff. 2. Conduct air monitoring/sampling within areas of public receptors. 3. Respond to complaints of odors and petroleum/dispersant related VOCs. 4. Conduct mobile air sampling and monitoring as needed. 5. Asset will be shared between Regions 4 and 6. 6. Complete daily summaries to Division Sup and Ops Chief.					
8. Special Instructions					
1. Team Supervisors give status reports to Division Supervisor. 2. Notify Div Sup if any health and safety issues occur. 3. All teams check with the Houma Incident Command Post upon completion of mission. 4. All media interest should be directed to Division Supervisor.					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief/Div Sup		214-789-9587			
Nancy Jones, Div Sup		214-789-1527			
Dave Mickunas, Task Force Leader		609-865-1574			
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by David Bordelon		Date/Time 23-May-10 / 22:31		11. Reviewed by (OSC) Chris Ruhl, OSC	
				Date/Time	
				12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division Aspect			
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Nancy Jones	U.S. EPA	214-789-1527	
Division Lead:		Mark Thomas	U.S. EPA	513-675-4753	
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Task Force ASPECT	Mark Thomas	513-675-4753	6	Contact Div Supervisor /Division Lead	<input type="checkbox"/>
Aerial over flights for aerial survey, monitoring and sampling (EPA)	Tim Curry Paul Kudaraskas John Cardarelli David Kappelman	816-718-4281 202-344-5382 513-675-4745 334-546-7064			
Aerial over flights for aerial survey, monitoring and sampling (ARRAE)	Paul Fletcher (Pilot) Beorn Leger (Pilot) David Wagner (Pilot) Rich Rousseau (Pilot)	214-632-4987 972-921-1893 469-693-9906 972-825-6953			
7. Work Assignments					
<ol style="list-style-type: none"> 1. Conduct support operations to Division Command Staff. 2. Conduct over flight operations as directed by Division Sup. 3. Conduct photographic documentation as directed by Division Sup. 4. Conduct air monitoring and sampling as requested by the Environmental Unit and directed by Division Sup. 5. Complete daily summaries to Division Sup and Ops Chief. 					
8. Special Instructions					
<ol style="list-style-type: none"> 1. Team Supervisors give comms/status reports to Division Sup at the end of each mission. 2. Notify Div Sup if any health and safety issues occur. 3. All media interest should be directed to Division Supervisor. 					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief		214-789-9587			
Nancy Jones, Div Sup		214-789-1527			
Mark Thomas, Division Lead		513-675-4753			
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by David Bordelon		Date/Time 23-May-10 / 22:31		11. Reviewed by (OSC) Chris Ruhl, OSC	
				Date/Time	
				12. Reviewed by (OSC) Date/Time	

1. Incident Name Deep Water Horizon Oil Spill		2. Operational Period (Date/Time) From: 0600, 24 May 10 To: 0600, 28 May 10		Assignment List ICS 204-EPA	
3. Branch Environmental Branch		4. Division/Group/Staging Division Chalmette			
5. Operations Personnel		Name	Affiliation	Contact # (s)	
Operations Chief:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Supervisor:		Chris Ruhl	U.S. EPA	214-789-9587	
Division Lead START:		David Bordelon	START	225-772-7921	
6. Resources Assigned		"X" indicates 204a attachment with additional instructions			
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Mobil CP Task Force	David Bordelon	225-772-7921	6	Contact Div Supervisor /Division Lead (START)	
MCP/Network Team START (1)	Jose Cervantes	972-979-2114			
Data Management Team START (1)	Fran Curtis	610-999-0989			
Field Cost Accountant START (1)	Lupe Cavazos	210-288-5126			
Resources Team (START (1)	Lauren Pesce	978-771-8487			
7. Work Assignments					
7. Conduct support operations to Division Command Staff and all field teams. 8. Conduct logistics support to MCP and all field operations. 9. Provide field accounting support for cost documentation.					
8. Special Instructions					
1. Team Supervisors give comms/status reports to START Div Ld at 1000 and 1500. 2. Notify Div Sup if any health and safety issues occur. 3. All teams check in no later than 2000 at Chalmette Division Command Post for debrief. 4. All media interest should be directed to Division Supervisor.					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function		Phone			
Chris Ruhl, Ops Chief/Div Supv		214-789-9587			
David Bordelon, START Div Ld \		225-772-7921			
Fran Curtis, Data Management Ld		610-999-0989			
Tom Davis, START Air Sampling Team Ld		484-880-5113			
Lupe Cavazos, START Field Cost Accountant		210-288-5126			
Lauren Pesce, Resources Team Ld		978-771-8487			
See communications list for additional contact numbers					
Emergency Communications					
Medical 911		Evacuation		Other Safety Officer	
10. Prepared by Date/Time David Bordelon 23-May-10 / 13:20		11. Reviewed by (OSC) Chris Ruhl, OSC		12. Reviewed by (OSC) Date/Time	

Contact List			Incident Name	2. Operational Period Date/Time
			Deepwater Horizon Oil Spill	Starting: 0700 2010/05/24 Ending: 0700 2010/05/28
Last Name	First Name	Cell #	Activity	

USEPA

Zehner	Warren	214.789.1585		Incident Commander
Ruhl	Chris	214.789.9587		Deputy Incident Commander
McAteer	Mike	214.354.9371		Division Sup-Plaquemines
Rhotenberry	William	214.437.9804		Division Sup-Plaquemines
Brescia	Nick	214.665.2291		Division Sup-Plaquemines
Bradley	Dave	214-789-9182		Logistics
Paisley	Eric	214-789-8750		Logistics

START 3

Bordelon	David	225-772-7921		Mobil CP Task Force- Team Lead -Chalmette
Latham	Janine	215-620-5664		Mobil CP Task Force-Data Management-Chalmette
Curtis	Fran	610.999.0989		Mobil CP Task Force-Data Management-Chalmette
Latham	Ben	972-213-6618		Mobil CP Task Force- Team Lead -Venice
Wright	Jeff	225-278-8406		Mobil CP Task Force- Team Lead -Venice
Franklin	Curtis	817-229-1222		Water Sampling Team- Team Lead -Chalmette
Redwine	Jarrod	806-438-2464		Water Sampling Team-1-Chalmette
Bryniarski	Jeff	708-284-2490		Air Sampling Team-1-Plaquemines
Pelc	Dayna	484-947-9670		Air Sampling Team- Lead-Plaquemines
Davis	Tom	484-880-5113		Air Sampling Team- Lead-Chalmette
Wilson	Mark	337-581-8430		Air Sampling Team-Chalmette
Sylveria	Warren	302-462-0164		Air Sampling Team-Chalmette
Turner	Pat	843-469-5811		Air Sampling Team-Chalmette
Alexander	Terry	410-919-8319		Air Sampling Team-Chalmette
Wood	Jeremy	334-663-3886		Air Sampling Team-Chalmette
Odenweller	Claire	937-475-1626		Air Sampling Team-Chalmette
Johnson	Kevin	334-728-0126		Air Sampling Team-Chalmette
Thomason	Greg	512-417-5543		Mobil CP Task Force-GIS-Chalmette
Hughes	Brendan	832-367-9260		Mobil CP Task Force-GIS-Chalmette
Brown	Jean	400-406-2813		Mobil CP Task Force-Finance-Chalmette
Cavazos	Lupe	210-288-5126		Mobil CP Task Force-Finance-Chalmette
Cook	Lauren	978-771-8487		Mobil CP Task Force- Resources-Chalmette
Ambrosio	Lorie	248-798-4089		Mobil CP Task Force- Resources-Chalmette
Cheek	Sam	972.977.1579		Asst. Health and Safety Officer-Chalmette
Clarke	Paul	920-378-0484		Air Sampling Team- Lead -Plaquemines
Wallis	Jim	334-332-7127		Air Sampling Team-Plaquemines
Wilken	Patrick	225-802-2001		Air Sampling Team-Plaquemines
Navarro	Nata	361-443-5323		Air Sampling Team-Plaquemines
Beer	Matt	248-939-7824		Air Sampling Team-Plaquemines
Boggs	Mary	401-301-3278		Air Sampling Team-Plaquemines
Howard	Larry	225-205-0885		Air Sampling Team-Plaquemines
Novak	Paul	717-587-6146		Air Sampling Team-Plaquemines
Aljoe	Kristen	210-416-2686		Air Sampling Team-Plaquemines
Sadusky	Erik	678-516-7299		Air Sampling Team-Plaquemines
Stahling	Jim	919-880-6507		Air Sampling Team-Plaquemines
Arai	Garrett	610-209-2062		Water Sampling Team-Plaquemines
Kallus	Andy	360-508-2493		Water Sampling Team-Plaquemines
Smith	Tim	937-367-7475		Water Sampling Team-Cocodrie

Contact List Cont.			Incident Name Deepwater Horizon Oil Spill	2. Operational Period Date/Time Starting: 0700 2010/05/24 Ending: 0700 2010/05/28
Last Name	First Name	Cell #	Activity	

START

Cooper	Tray	210-296-7403	Air Sampling Team-Plaquemines
Cervantes	Jose	972-979-2114	Network Admin
Ma	Long	972-978-6699	Mobil CP Task Force-Data Management-Plaquemines
Staudt	Stephanie	713-819-5702	Mobil CP Task Force- Resources-Venice
Sena	David	574-261-5413	Air Sampling Team-Chamette
Kiel	Andy	216-409-0821	Air Sampling Team-Chamette
Ford	Greg	919-358-9980	Air Sampling Team-Chamette
Alaniz	Deborah	512-423-8209	Mobil CP Task Force- Resources-Venice
Fitzgerald	Margie	225-247-2254	Mobil CP Task Force-Finance-Plaquemines

Address

Plaquemines-	42256 HWY 23	Venice, LA 70091		
LDEQ	201 EVANS, Suite 420	Harahan, LA 70123		
Chalmette	St. Bernard Fire Station #8	Violet, LA		
Prepared by (Communications Unit)	Approved by (Logistics Section Chief)	Date	Time	
Samuel Cheek	Chris Ruhl	5/23/2010	1430	

1. Incident Name: Deep Water Horizon Oil Spill		2. Operational Period: From 05/24/10 0700 To 05/28/10 0700			MEDICAL PLAN ICS 206 - EPA				
3. Incident Medical Aid Station									
Medical Aid Stations		Location			Paramedics				
					Yes	No			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>			
4. Transportation									
A. Ambulance Services									
Name		Address		Phone		Paramedics			
						Yes	No		
Houma- Acadian Ambulance Service		1018 Bond Street, Houma, LA 70363		337-291-3333		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Chalmette- Acadian Ambulance Service		7532 West Judge Perez, Arabi, LA 70032		504-682-9550		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Venice- Plaquemines Parish Government		28028 HWY 23, Port Sulphur, LA 70083		504-564-1787		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
B. Incident Ambulances									
						<input type="checkbox"/>	<input type="checkbox"/>		
						<input type="checkbox"/>	<input type="checkbox"/>		
7. Hospitals									
Name		Address		Travel Time		Helipad		Burn Center	
				Air	Ground			Yes	No
Houma-Leonard J. Chabert Medical		1978 Industrial Blvd, Houma, LA 70363			15 min from CP	985-873-2200		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chalmette-Tulane Hospital		1415 Tulane Ave., New Orleans, LA 70112			30 min from CP	504-988-5863		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Venice- Oschner Medical Center-WB		2500 Belle Chasse Hwy, Terrytown, LA 70056			1 hr from CP	504-391-5454		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plaquemines Medical Center		26851 Highway 23, Port Sulphur, LA 70083			.5 hr from CP	504-564-3344		<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Medical Emergency Procedures									
Water operations: In the event of a medical emergency at sea personnel will contact the United States Coast Guard.									
Coast Guard contact information: VHF Radio-									
Channel 16	Ship Transmit MHZ 156.800	Ship Receive MHZ 156.800	International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain a listening watch on this channel						
In the event of a medical emergency at air monitoring locations and/or during land operations personnel will contact 911 and provide directions to the incident location if necessary.									
9. Prepared by (Medical Unit Leader)			Date/Time		10. Reviewed by (Safety Officer)			Date/Time	

1. Incident Name		2. Operational Period		Date / Time		INCIDENT ACTION PLAN SAFETY ANALYSIS ICS 215a - EPA															
Deepwater Horizon Oil Spill – Gulf of Mexico		Starting: 05/24/2010 0700 Ending: 05/28/2010 0700																			
4. Risk											5. Risk Mitigations										
Division / Group	Heat Stress	Communications	Slips/Trips/Falls	Water Safety	Animals	HAZMAT Operations	Proper PPE	Personal Hygiene	Chemical Hazards												
Protective Booming/ Water Ops	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Minimum Level D. Following proper protocol when working over water. Beware of emerged debris and sharp objects that can strike water craft. Watch out for snakes and other wildlife. Attempt to minimize slips, trips, and falls by making use of hand holds and appropriate nonslip footwear. Watch for bubbles and unusual odors around gas pipelines. Minimize contact with water, do not swallow the water. Insure all personnel wear approved US Coast Guard PFDs. Equip boat with USCG approved water rescue equipment. Apply sunscreen to exposed areas prior to launch. Apply mosquito repellant as needed. Bring water for hydration. Insure all personnel have emergency numbers and appropriate evacuation procedures and training on communication equipment. For any chemical hazards, review the HASP.			
6. Prepared By: (Name and Position)											Date				Time						
George P. Brozowski – IMT Safety Officer											05/18/2010				1600						
IAP SAFETY ANALYSIS																	ICS 215a - EPA				

Sea Sickness Precautions

Motion sickness can occur when the sensory inputs about body position contradict what is expected. It can be provoked by abrupt changes in movement, such as during bumpy rides, turbulent flights, and rough seas. It can also occur when one is exposed to moving visual scenes while the body is in a relatively fixed state.

Early signs of motion sickness include pallor, restlessness, and cold sweat. In later stages, nausea, excessive salivating, and vomiting occur. The degrees of symptoms that result from an acute exposure to provocative stimuli vary with the intensity of the stimulus and one's susceptibility to this condition.

About one third of the population is highly susceptible to motion sickness, a third experience it in fairly rough conditions, and another third become sick only in extreme conditions. Selected groups seem particularly susceptible; including children aged 3 to 12 years, people who experience migraine headaches, and women, particularly during menstruation and pregnancy.

Prevention Is Better Than Cure

Various precautionary medicines and devices are available these days to fight sea sickness. Some work well for some people and not so well for others. If it's your first trip it might be a bit of a "hit and miss" situation, but one of these should do the trick:

1. **Diet** - to start off with, eat "safe" foods for about a day before boarding (nothing acidic, spicy or fatty) ... and don't over indulge (food/alcohol). Eating a light "safe" meal before you board will also help reduce the risk and/or effects of seasickness. [Ginger](#) is a great choice!
2. The motion sickness **patch** is probably the most popular these days - to be placed behind your ear 4 hours before boarding and changed if necessary after 72 hours. This is quite an effective way to prevent seasickness but causes things like a dry mouth and blurry vision. Better to be thirsty than sick, though! The active ingredient, scopolamine, is absorbed through the skin.
3. **Over the counter medication** (usually causes some drowsiness) - to be taken 1-2 hours before boarding. The most recommended are pills with the active ingredient meclizine (less-drowsy *Dramamine*, *Bonine*, *Antivert*), then pills with the active ingredient Dimenhydrinate (*Dramamine* regular). *Marezine* (cyclizine) and *Stugeron* (cinnarizine) seem to be less sleep inducing than all of the above. Other popular antihistamines (*Benadryl* - diphenhydramine based) also work for some people. (**Money saving tip:** ask your pharmacist for the generic version of the medication you wish to take.)
4. **Homeopathic medicines** - *Trip Ease* should be taken 2 hours before boarding but also works if you're already feeling seasick (contains 6 natural active ingredients and has no drowsiness or other side effects); or *Sea Sickness Oral Spray* to be sprayed under your tongue 3 times a day or more if needed (contains 7 natural active ingredients and has no drowsiness or other side effects). *On The Move* capsules (contains ginger root, licorice root and cayenne) also help alleviate motion sickness and can also be used to combat headaches.

5. **Acupressure bracelets** - a drug-free product causing no side effects - the motion sickness band is worn one on each wrist for the duration of your trip. Some contain small magnets, others just a stud, which should be aligned with a pressure point (P6) on your wrist and pressure applied periodically. This won't work very well if you "miss" the pressure point.
6. *Motion Eaze* **natural oil** - to be applied behind the ear and is absorbed through the skin. Also effective if feeling nauseas already. No side effects.
7. The electronic, drug-free motion sickness **ReliefBand®** is worn on the wrist, a kind of motion sickness watch. It emits low-level electrical pulses to avoid and treat motion sickness by calming the stomach.

**For children, elderly folk, those using other medication, pregnant or breast feeding women - it's best to consult your doctor before taking new medication.*

To The Rescue!

Should you have forgotten to swallow, stick, rub or sniff your chosen anti-sea sickness remedy or the seas are extremely rough and you suddenly start to sweat, turn pale, salivate and have a general feeling of discomfort, hopefully your brain will recall the file in which you stored the following information and you can still enjoy your cruise until you find your sea legs:

DO:

1. Look out the window (or better yet, go onto the deck and to the centre of the ship, facing forward) at a distant, stable object, like the **horizon**. The centre of the ship, close to the waterline, is the most stable part of the ship.
2. Use a **fan** or listen to some **music**... this will get your mind off things.
3. Eat some **salty snacks** with regular intervals to help dry up your stomach.
4. **Relax** if you can - lying down and closing your eyes might help.
5. **Ginger** is a natural remedy to general nausea and sea sickness. Drink ginger beer or tea, or eat fresh ginger, a cookie or suck on a ginger sweet (like Gin Gins) to help combat your green cheeks. Try Sailor's Secret, a branded ginger capsule or Quesy Pops, popsicles containing essential oils from natural herbs and aromatherapy in ginger flavor but also others like lavender, peppermint, etc. Any ginger product is most effective if taken before boarding.
6. **Some motion sickness medicine** (e.g. Dramamine patches) may help to reduce the nausea at this stage. Maybe one of the most effective if you're severely seasick and vomiting, are heavy duty Phenergan Suppositories.
7. Bitters, mint, citrus, apricot juice, carrot juice, unroasted pumpkin or squash seeds, parsley and peppermint tea are also said to help combat sea sickness but there doesn't seem to be much proof out there.

DON'T:

1. Read or watch television once the sea sickness has kicked in, it will make you feel worse.
2. Drink big gulps of water. Tiny sips at intervals are better.
3. Face backwards (you'll continue to become nauseous and feel worse)!